Claims

[c1]   1. A method for operating a network coupling adapter attaching one or more computing device via an associated interconnected memory to either one of an I/O periphery, a network, or other computing devices, characterized by the steps of:
operating a local memory being associated with the network coupling adapter as a cache memory relative to a system memory for storing transmission control information.

[c2]   2. The method according to claim 1 further comprising the steps of using an InfiniBand Architecture.

[c3]   3. The method according to the claim 1 further comprising the steps of using said transmission control for the processing of queues or queue pairs.

[c4]   4. The method according to claim 2 further comprising the steps of using said transmission control for the processing of completion queues.

[c5]   5. The method according to claim 2 further comprising the steps of using said transmission control for the processing of address translation and protection tables.

[c6]   6. The method according to claim 2 further comprising the steps of using said local memory for connecting at least one computer device to a network.

[c7]   7. The method according to claim 2 further comprising the steps of using said transmission control information for bundled per queue or queue pair.

[c8]   8. The method according to claim 2 further comprising the steps of configuring said cache memory not to discard transmission control information for particular queues after casting-out.

[c9]   9. The method according to claim 2 further comprising the step of writing said transmission control information to the local memory only before signaling the completion of a InfiniBand verb.

[c10]   10. The method according to claim 2 further comprising the steps of using said

previous step for connecting a plurality of I/O hardware devices associated with a computing device.

[c11]   11.The method according to claim 2 further comprising the steps of using said previous step for providing communication channels for interprocess communication between a plurality of processes associated with one or more computing devices.

[c12]   12.A network coupling element coupling one or more computing devices via an associated interconnected memory to either one of an I/O periphery, a network, or other computing devices characterized by comprising a local memory being operable as a cache memory relative to said interconnected memory.

[c13]   13.The network coupling element for coupling one or more computing devices via an associated interconnected memory to an I/O periphery, and operates either as a Host Channel Adapter or a Target Channel Adapter being operable according the InfiniBand Architecture is characterized by comprising a local memory being operable as a cache memory relative to said interconnected memory.

[c14]   14.A server computer system cooperating with a network adapter, said network coupling adapter comprises;
a local memory being operable as a cache memeory for storing transmission control information.